Disease On The Door Handle

Campus Infection Prevention

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The Problem
College campuses, like many urban areas, promote high volumes of human traffic and contact with common surfaces. Specifically, door handles are a shared surface that is used by all in an urban area, such as Worcester Polytechnic Institute. This common surface harbors and distributes bacteria and viruses, which facilitates the spread of disease on campus.

The Goals
1. Investigate the infectiousness of door handles and the habits of people who use them.
2. Promote sanitary changes

Recommendations
• Avoid touching door handles when possible
• Avoid unnecessary face-touching
• Better hand-washing

The Spread of Antigenic Pathogens!

Three Phase Investigation

27 Handles Harbor 1,323 Colonies

Bacterial samples were collected from the door handles of buildings on campus using sterile supplies.

35% of respondents said they actively avoid touching door handles.

A survey was distributed among students at WPI asking questions regarding health habits and past/present illnesses.

1,060 561 86
People Observed Touched Door Handles Touched Faces

A GoPro was used to record five thirty minute clips of human behavior, each in a different shared area of WPI.


colleges vary in surface area. Mold and fungus were also present in samples.